

### west virginia department of environmental protection

Division of Air Quality 601 57th Street SE Charleston, WV 25304 Phone (304) 926-0475 • FAX: (304) 926-0479 Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

#### ENGINEERING EVALUATION / FACT SHEET

#### BACKGROUND INFORMATION

Application No.: R13-2862A Plant ID No.: 033-00190

Applicant: Allied Oil and Gas Services, LLC

Facility Name: Clarksburg

Location: Bridgeport, Harrison County

SIC Code: 1389

Application Type: Modification Received Date: June 23, 2014

Engineer Assigned: Thornton E. Martin Jr.

Fee Amount: \$1000.00 Date Received: June 26, 2014 Complete Date: July 23, 2014 Applicant Ad Date: June 21, 2014

Newspaper: The Exponent Telegram

UTM's: Easting: 566.253 km Northing: 4348.636 km Zone: 17

Description: Applicant proposes to relocate the cement bulk plant from the existing

location at 100 Hope Street in Clarksburg, West Virginia to the proposed location at 1036 E. Main Street in Bridgeport, West Virginia. Additionally, a waste tank, dust collector and two new 2,000 gallon Highland Tank & Manufacturing Company double-walled steel above-ground storage tanks

(AST's) will be added to store diesel fuel.

#### PLANT OVERVIEW

The use of the cement bulk plant will be to store dry bulk cement, blend the materials and load the bulk materials onto bulk trucks to be transported to the oil and gas well sites for use. The cement bulk plant is a closed system since no products are unloaded or loaded without going through and emissions control device, which is inherent to the process to ensure minimal loss of product. All materials are dry and non-hazardous per DOT guidelines. A concrete pad measuring 65' X 50' will be constructed to support the entire bulk plant.

# **DESCRIPTION OF PROCESS**

Raw materials will be delivered by truck and pumped into the specific silos 1-4. The product will then be pumped to silo 5. From Silo 5 it will go to the weigh batcher. At this point the raw materials will be mixed with dry bulk chemicals. Once mixed, product will be pumped back to silo 5 for blending. Once blended, product will transfer to truck for delivery. All emissions from operations will vent to a new Donaldson Company, Inc., Model No. CPV-8 Dust Collector (1C) or the existing baghouse (2C). VOC losses from the new Diesel Tanks are approximately 0.97 lbs/yr each or 0.001 tons/year. The maximum amount of process materials charged per hour are 11.8 tons (250 sacks) of concrete powder and 2.3 tons (50 sacks) of cement supplements or 14.1 tons (300 sacks) of concrete mixture prepared per hour. The facility will operate significantly less than 24 hours/day and 365 days/year and therefore, production capacity is limited to 37,600 tons (800,000 sacks) of cement mixture loaded per year.

The proposed facility shall be constructed and operated in accordance with the following equipment and control device information taken from permit application R13-2862A:

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type <sup>3</sup> and Date of Change	Control Device
1S	1E	Cement Storage Silo	2010	94 Tons	Relocation	1C
2S	1E	Cement Storage Silo	2010	94 Tons	Relocation	1C
3S	1E	Cement Storage Silo	2010	94 Tons	Relocation	1C
4S	1E	Flyash Storage Silo	2010	94 Tons	Relocation	1C
5S	1E	Weigh Batcher	2010	94 Tons	Relocation	1C
6S	1E	Barite Storage Silo	2010	35 Tons	Relocation	1C
7S	1E	Cement Storage Silo	2010	141 Tons	Relocation	1C
8S	1E	Waste Tank	2014	120 Tons	New	1C
9S	2E	Scale Tank	2010	9.4 Tons	Relocation	2C
10S	1E	Blend Tank	2010	9.4 Tons	Relocation	1C
11S	3E	Diesel Storage Tank	2014	2,000 gal.	New	N/A
12S	4E	Diesel Storage Tank	2014	2,000 gal.	New	N/A

### SITE INSPECTION

According to the plot plan provided with the application, access to the facility is an unpaved access road. Surrounding properties are undeveloped and the nearest off-site occupied structure is located 320' Southeast of the bulk plant. Brian Tephabock of the North Central Regional Office visited the site on August 04, 2014. He stated that site construction is taking place and there are other businesses under construction as well. It is considered an industrial park type setting under

development.

Directions: Take Highway 50 (Main Street) East from I-79, through Bridgeport. Facility will

be located on south side of E. Main Street (Highway 50), west of intersection with

State Highway 76.

## ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

The estimated emission calculations for the concrete batch plant were performed by the applicant and were reviewed for accuracy by the writer; those results are used in this evaluation. Refer to the following table for a complete summary of the proposed facility's emissions created from the bulk plant:

Emissions Summary - Allied Cementing - Bridgeport	Controlled PM Emissions		Controlled PM <sub>10</sub> Emissions			
R13-2862A	lb/hour	TPY	lb/hour	TPY		
	Fugitive Emissions					
Stockpile Emissions	0.00	0.00	0.00	0.00		
Unpaved Haulroad Emissions	3.77	1.74	1.70	0.79		
Paved Haulroad Emissions	0.00	0.00	0.00	0.00		
<b>Fugitive Emissions Total</b>	3.77	1.74	1.70	0.79		
	Point Source Emissions					
Transfer Point Emissions	1.17	0.56	0.48	0.25		
<b>Point Source Emissions Total</b>	1.17	0.56	0.48	0.25		
FACILITY EMISSIONS TOTAL	4.94	2.30	2.18	1.04		

### REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the proposed facility. The proposed cement processing facility is subject to the following state and federal rules:

45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation

The proposed facility is subject to the requirements of 45CSR13 because it is to relocate non-major stationary sources within the state of West Virginia. The applicant submitted the proper application fee of \$1000.00 and published a Class I legal advertisement in *The Exponent Telegram* on June 21, 2014.

45CSR17 To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter

The proposed facility is subject to the requirements of 45CSR17 because it is a storage and handling facility for particulate matter and it is not defined as a manufacturing process, therefore it is not subject to 45CSR7.

45CSR22 - Air Quality Management Fee Program

This rule establishes a program to collect fees for certificates to operate and for permits to construct, modify or relocate sources of air pollution. Funds collected from these fees will be used to supplement the Director's budget for the purpose of maintaining an effective air quality management program. The facility will demonstrate compliance with this rule by obtaining a Certificate to Operate (CTO) and paying annual fees in order to maintain a current CTO.

## TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the pollutants being emitted from this facility are PM (particulate matter) and PM<sub>10</sub> (particulate matter less than 10 microns in diameter).

## AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the size and location of this facility and the limits of the permit. The facility is located in Harrison County, WV, which is currently in attainment for PM (particulate matter) and  $PM_{10}$  (particulate matter less than 10 microns in diameter).

### MONITORING OF OPERATIONS

The dust collector (1C) and baghouse (2C) shall be in operation to capture particulates at the transfer points, and a water truck will be utilized to control particulate emissions from the haulroads.

The permittee shall maintain certified monthly and annual records of the amount of cement processed. The permittee shall also maitain records of baghouse inspections as well as filter changes. These certified records shall be maintained on site for a period not less than five (5) years and be made available to the Director or his or her duly authorized representative upon request.

## RECOMMENDATION TO DIRECTOR

The information contained in this relocation application indicates that compliance with all applicable regulations should be achieved when all proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. No comments were received. Therefore, the granting of a permit to Allied Cementing Company for the relocation of a bulk cement storage and loading facility to be located at Bridgeport in Harrison County, WV is hereby recommended.

Thornton E. Martin Jr. Permit Engineer

August 05, 2014

Date